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PATENT ABSTRACTS OF JAPAN

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(71) Applicant: AGENCY OF IND SCIENCE &

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(72) Inventor: HAYASHI YUTAKA YAMANAKA MITSUYUKI

LTD

SEIKO INSTR & ELECTRONICS

SHIN ETSU CHEM CO LTD

UMEMURA MITSUO OKAZAKI SATOSHI

TAKADA RYOJI KAMIYA MASAAKI

(74) Representative:

(54) MANUFACTURE OF THIN FILM TRANSISTOR

(57) Abstract:

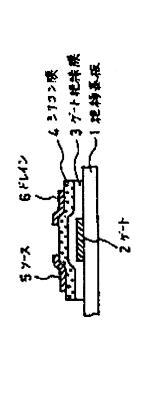
PURPOSE: To perform stable operation characterized by high mobility, by using a silicon film made by thermal CVD of high-order silane

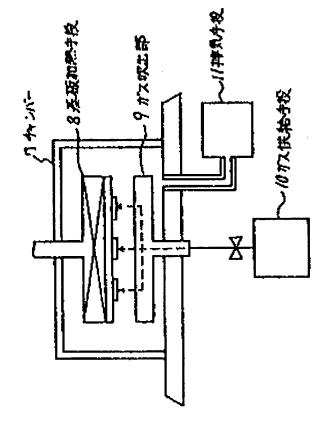
such as trisilane or higher as a channel semiconductor film of a thin film transistor.

doublelayer structure of a P-or N-type A source 5 and a drain 6, which have the trisilane or higher is introduced in a chamber 7; and the film 4 is formed silicon oxide film and silicon nitride ransistor is formed. The silicon film CONSTITUTION: On an insulating 400°C; the high order silane such as 4 is formed as follows: the substrate evaporation, sputtering and the like. A gate insulating film 3 such as a film is laminated by a CVD method and the like on the gate 2. A silicon thermal CVD method on the film 3. substrate 1, a gate 2 comprising Ni, is heated to a temperature of about thermal decomposition reaction on ilm 4 of high-order silane such as low resistance semiconductor film risilane or higher is formed by a on the surface of the substrate by W, Mo and the like is formed by and a metal film, are formed. An inverted staggered type thin film he substrate.

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